

## CLAIM

What is claimed is:

- 5 1. A method of creating computer-based simulations, using database entries and menu selections, rather than writing complex software code, comprising:
  - an authoring tool for building computer-based learning software or games;
  - a set of scenes created by said authoring tool;
  - a set of objects, such as text and multimedia comprising each scene; and
  - a simulation database entry for each object.
- 10 2. The method defined in claim 1, wherein objects are displayed within a scene based on a set of preconditions.
3. The method defined in claim 1, wherein variable changes defined by the simulation database are applied as a new scene is entered.
- 15 4. The method defined in claim 1, wherein the simulation database inspects each entered object by iteratively moving through all possible links to determine a set of preconditions for a link.
5. The method defined in claim 1, wherein the simulation database calculates the chance value for a link, giving a range (X to Y) for a link with no overlap of other ranges, finding a random number between 1 and the sum of the chance value, and selecting a
- 20 link with a range containing the random number.
6. The method defined in claim 1, wherein the object selected queries the simulation database to determine link destination.